

ABSTRACT OF THE DISCLOSURE

An apparatus for loading fibers in a fiber suspension with calcium carbonate has a housing with an inlet and an accept outlet. A rotatable distribution member is positioned within the housing. A rotor and stator assembly is positioned within the housing radially outside of the distribution member. A toothed ring is interposed between the distribution rotor and the rotor and stator assembly. The toothed ring and the rotor and stator assembly define a gas ring therebetween. A reactant gas supply is fluidly coupled with the gas ring. A method for loading fibers in a fiber suspension with calcium carbonate can be practiced with the apparatus, The method controls various factors and provides low shear treatment of the suspension to promote selective crystal formation.